Claims

- 1. A multi-image display system comprising a transparent indicia carrier, upon which are provided two or more interlaced images, and means for applying an external stimulus to selectively allow light to highlight parts of said indicia carrier that belong to a single image of said two or more interlaced images; whereby, upon application of said external stimulus a single image is displayed.
- 2. A multi-image display system comprising a stationary electronic grating and a stationary indicia carrier upon which are printed interlaced images, wherein said grating comprises individually addressable areas corresponding to the lines, pixels, or subpixels of printing on said indicia carrier, wherein each of said areas comprises a pair of electrodes, and an active material located in the space between said electrodes, said active material being such that, upon application of a stimulus to said pair of electrodes, a property of said active material changes from one state to another and, upon removal of said stimulus, said property returns to its initial state, thereby revealing or obscuring said lines, pixels, or subpixels of printing.
- 3. A multi-image display system according to claim 2, wherein the property is the optical transparency of said active material which, upon application of the stimulus is changed from a transparent to an

opaque state, or *vice versa*, and upon removal of said stimulus, returns to its original state.

- 4. A multi-image display system according to claim 2, wherein the property is the electroluminescence of said active material which, upon application of the stimulus is changed from a luminescent to a non-luminescent state, or *vice versa*, and upon removal of said stimulus, returns to its original state.
- 5. A multi-image display system according to claim 2, wherein the stimulus is the application of an electric potential causing effects including, but not limited to, creation of a localized electric field and/or localized heating in the space between said electrodes and/or causing an electric current to flow between said electrodes.
- 6. A multi-image display system according to claim 2, wherein the active material exhibits one of the properties included in, but not limited to, the following group: electrochromism, thermochromism, electroluminescence; or is chosen from the group including, but not limited to: liquid crystals, and suspended particles of the types used in light valves.
- 7. A multi-image display system according to claim 2, wherein the printing on the indicia carrier is in the form of parallel lines and the

corresponding individually addressed areas of the grating comprise an array of parallel strips.

- 8. A multi-image display system according to claim 2, wherein the printing on the indicia carrier is in the form of a two-dimensional matrix of pixels, wherein each pixel comprises a number of subpixels corresponding to the number of distinct images that comprise the interlaced image, and the corresponding individually addressable areas of the grating comprise a two-dimensional matrix the unit cell of which has the same dimensions as that of said pixel, wherein each unit cell is divided into separately addressable corresponding to said subpixels and wherein said unit cells and said subcells are arranged with the same geometric relationship that exists between said pixels and said subpixels.
- 9. A multi-image display system according to claim 2, further comprising an array of lights to back-light the image.
- 10. A multi-image display system according to claim 2, further comprising a control circuit to apply the stimulus in a predetermined manner.
- 11. A multi-image display system according to claim 10, wherein the predetermined manner is applying the stimulus simultaneously to

the set of all the areas of the grating corresponding to all the lines or subpixels associated with one of the distinct images, thereby displaying said distinct image.

12. A multi-image display system according to claim 11, further comprising a means for alternating, in a predetermined manner, between sets of areas of the grating, wherein each of said sets corresponds to all the lines or subpixels associated with each one of the distinct images, thereby displaying each of said distinct images individually in a predetermined sequence.